Lockheed Missiles & Space Company, Inc.

Sunnyvale, California

December 20, 1989

TSCA Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
Room L-100
401 M Street S. W.
Washington, D. C. 20460

Sirs:

This package contains the completed CAIR report forms for those chemicals on which Lockheed Missiles and Space Company (LMSC) is reporting, as listed in the Chemical Substance Matrix, section 704.225 of the December 22, 1988, Federal Register. Of the substances listed, the only ones which LMSC uses and which are not clearly exempted from reporting, are Toluene Diisocyanates (TDI).

The seven reports being filed are for the following chemicals:

Conathane DPEN-8536 (two reports filed for the two EPA facilities within LMSC)

We have been notified by the supplier via the June 14 Federal Register listing. We are using this product at two different EPA facilities of LMSC, as indicated in the reports.

Eccofoam FPH

We have not received a letter from the supplier, but have verbal information that he is preparing a written notification.

Scotch Cast Brand Resin 221

We received no letter from the supplier, who has indicated that they did not notify us since they are no longer producing this material, but would have if they were still manufacturing it.

Stafoam P1100 Series, Component T (three reports filed for the three different densities of this product).

We received no letter from the supplier since that company is exempt from reporting because of the size of their business and the volume of TDI that they manufacture.

We are reporting to you for all of these chemicals, because we consider the intent of the regulation makes it appropriate to report, even though in three of the four cases there may be a technicality which might be construed as reason not to report.

This report is provided within the timeframe requested in our letter dated September 28, 1989, and which was re-sent on November 20, 1989. On December 19, 1989, we received telephone confirmation that this request had been granted.

TSCA Document Processing Center (TS-790) Page 2 December 20, 1989

If further information is needed, please call Barbara Jinbo [(408) 742-1193], who is the technical contact as listed on the report form.

Sincerely,

LOCKHEED MISSILES & SPACE COMPANY

George M. Tomer, Manager Occupational Safety and Health

O/47-20, B/106 1111 Lockheed Way Sunnyvale, CA 94089 (408)743-2600

GMT:elm Enclosures

Statoan PHOLO COMPONENT NO CBI



Form Approved
OMB No. 2010-0019
Approval Expires 12-31-89



90.900000034

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Comprehensive Assessment Information Rule REPORTING FORM

When completed, send this form to:

Document Processing Center
Office of Toxic Substances, TS-790
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
Attention: CAIR Reporting Office

For Agency Use Only:

Document
Office of Receipt:
Off

EPA Form 7710-52

		SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION
PART	A (GENERAL REPORTING INFORMATION
1.01) Thi	s Comprehensive Assessment Information Rule (CAIR) Reporting Form has been
<u>CBI</u>	COI	pleted in response to the <u>Federal Register</u> Notice of $[\overline{\underline{1}}]\underline{\overline{\Delta}}$ $[\underline{\overline{\Delta}}]\underline{\overline{\Delta}}$ $[\underline{\overline{X}}]\underline{\overline{X}}$ year
[_]	a.	If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal
		Register, list the CAS No
	b.	If a chemical substance CAS No. is not provided in the $\underline{\text{Federal}}$ Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the $\underline{\text{Federal}}$ Register.
		(i) Chemical name as listed in the rule
		(ii) Name of mixture as listed in the rule
		(iii) Trade name as listed in the rule
	c.	If a chemical category is provided in the <u>Federal Register</u> , report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.
		Name of category as listed in the rule
		CAS No. of chemical substance []]]]]]]]]]]
		Name of chemical substance
1.02	Ide	ntify your reporting status under CAIR by circling the appropriate response(s).
CBI	Man	ufacturer 1
[_]	Imp	orter 2
	Pro	cessor
	X/P	manufacturer reporting for customer who is a processor 4
	X/P	processor reporting for customer who is a processor 5
[_]	Mark	(X) this box if you attach a continuation sheet.

(1 02)	ъ.				
(1.03) CBI		es the substance you are reporting on have an " x/p " designation associated with i the above-listed Federal Register Notice?			
		Go to question 1.0 $[\overline{ oldsymbol{Z}}]$			
	No				
1.04	а.	Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response.			
CBI		Yes			
[_]		No			
	b.	Check the appropriate box below: NA			
		[] You have chosen to notify your customers of their reporting obligations			
		Provide the trade name(s)			
		· · · · · · · · · · · · · · · · · · ·			
		[] You have chosen to report for your customers			
		You have submitted the trade name(s) to EPA one day after the effective date of the rule in the <u>Federal Register</u> Notice under which you are reporting.			
1.05 CBI	If y	you buy a trade name product and are reporting because you were notified of your printing requirements by your trade name supplier, provide that trade name.			
	Trac	de name			
[_]	Is t	he trade name product a mixture? Circle the appropriate response.			
	Yes	***************************************			
	No .				
_	Cert sign	ification The person who is responsible for the completion of this form must the certification statement below:			
CBI	"I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."				
•	Geo	NAME SIGNATURE 12/20/89 DATE SIGNED			
-	Man	ager, Occupational Safety (408) 743-2600 - TITLE and Health TELEPHONE NO.			
[<u>]</u>] Ma	ırk	(X) this box if you attach a continuation sheet.			

1.03		es the substance you are reporting on have an "x/p" designation associated with it the above-listed Federal Register Notice?
CBI		Go to question 1.(
· ,	No	
(1.04) (CBI) ([])	a. b.	Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response. Yes
		Provide the trade name(s)
		[_] You have chosen to report for your customers [_] You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.
1.05 <u>CBI</u>	rep	you buy a trade name product and are reporting because you were notified of your orting requirements by your trade name supplier, provide that trade name.
[_]	Is	the trade name product a mixture? Circle the appropriate response.
		······································
CBI	"I h	rification The person who is responsible for the completion of this form must the certification statement below: mereby certify that, to the best of my knowledge and belief, all information ared on this form is complete and accurate."
		NAME SIGNATURE DATE SIGNED
		TITLE TELEPHONE NO.
[] M	ark	(X) this box if you attach a continuation sheet.

1.07			
<u>CBI</u>	with the required information within the past 3 years, and t for the time period specified are required to complete secti	If you have provided EPA or another on a CAIR Reporting Form for the chis information is current, accurate the rule, then sign the certical on 1 of this CAIR form and provide y submitted. Provide a copy of a cetion 1 submission.	listed substance rate, and complete fication below. You de any information
A(information which I have not i	e best of my knowledge and belief ncluded in this CAIR Reporting For and is current, accurate, and co	orm has been submitte
	NAME	SIGNATURE	DATE SIGNED
	TITLE	()TELEPHONE NO.	DATE OF PREVIOU SUBMISSION
<u>CBI</u>	"My company has taken measures and it will continue to take the been, reasonably ascertainable using legitimate means (other a judicial or quasi-judicial prinformation is not publicly available."	tements truthfully and accurately hich you have asserted. to protect the confidentiality of hese measures; the information is by other persons (other than gow than discovery based on a showing roceeding) without my company's contained ailable elsewhere; and disclosured my company's competitive position.	of the information, not, and has not ernment bodies) by of special need in onsent; the
	NAME	SIGNATURE	
		_	DATE SIGNED
	TITLE	TELEPHONE NO.	DATE SIGNED
	TITLE	TELEPHONE NO.	DATE SIGNED

PART	B CORPORATE DATA
$\overline{}$	
(1.09	Facility Identification
<u>CBI</u>	Name $[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $
	(3)~1010171717151-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
	[<u>C]A] [9]4]0]8]9][3]5]0]</u> State
	Dun & Bradstreet Number $\dots [\overline{0}]\overline{0} - [\overline{9}]\overline{1}\overline{2} - [\overline{5}]\overline{5}\overline{3}\overline{3}$
	EPA ID Number
	Employer ID Number
	Primary Standard Industrial Classification (SIC) Code
	Other SIC Code
	Other SIC Code
1.10	Company Headquarters Identification
CBI '	
[_]	Address [][][][][][][][][][][][][][][][][][][
	[<u> </u>
	[<u>C]A</u>] [<u>역</u>]4 <u>]0]용 역</u>][<u>3]도]0]4</u> State
	Dun & Bradstreet Number $[0]0]-[9]1]2]-[5]5]3]5]$
	Employer ID Number

[_] Mark (X) this box if you attach a continuation sheet.

(1.11) Parent Company Identification CBI Name 「「回回下田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	_ - ₁
Address 4 5 0 0 P A P P E A D	-,
CALABASAS City Ci	¹
C A C A B A S A S	<u>_</u>]
C A [9]1]3 9 9 [0]3 3 Dun & Bradstreet Number [0]0]-[8]2 5 -[5]2 8 Out of Bradstreet Number [0]0]-[8]2 5 -[5]2 5 Out of Bradstreet Number [0]0]-[8]2 5 -[5]2 5 Out of Bradstreet Number [0]0]-[8]2 5 -[8]2 5 Out of Bradstreet Number [0]0]-[8]2 5 -[8]2 5 Out of Bradstreet Number [0]0]-[8]2 5 -[8]2 5	_]
Dun & Bradstreet Number [0]0]-[8]3]5]-[5]3]8	<u>-</u>]
Name	
[] Title [S]に[] [E] [S] [[] [] [] [] [] [] [] []	
Address (丁)丁丁丁丁□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	-]
Address [1] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_ _]k
「	
	<u>_</u>]_
]2
This reporting year is from $[\overline{\underline{\bigcirc}}] \overline{\underline{\backslash}}] [\overline{\underline{\&}}] \overline{\underline{\&}}]$ to $[\overline{\underline{\backslash}}] \overline{\underline{\Diamond}}] [\overline{\underline{\&}}]$	aı
[] Mark (X) this box if you attach a continuation sheet.	_

_	
(1.14)	Facility Acquired If you purchased this facility during the reporting year, provide the following information about the seller:
<u>CBI</u>	Name of Seller [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
[_]	Mailing Address [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
g P	[_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	[_]_] [_]]][_]]]] State
	Employer ID Number
	Date of Sale
	Contact Person [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	Telephone Number
1.15	Facility Sold If you sold this facility during the reporting year, provide the following information about the buyer:
CBI	Name of Buyer [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
[_]	Mailing Address [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
NA	[_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	[_]_] [_]_]_]_][_]]_]_]_]] State
	Employer ID Number
	Date of Purchase
	Contact Person [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	Telephone Number
[_] •	Mark (X) this box if you attach a continuation sheet.

<u>CBI</u>		
[_]	Classification	Quantity (kg/yr
	Manufactured	<u>NA</u>
	Imported	<u>~~</u>
	Processed (include quantity repackaged)	
	Of that quantity manufactured or imported, report that quantity:	
	In storage at the beginning of the reporting year	· <u>NA</u>
	For on-site use or processing	··NA
	For direct commercial distribution (including export)	<u>NA</u>
	In storage at the end of the reporting year	NA
	Of that quantity processed, report that quantity:	
	In storage at the beginning of the reporting year	
	Processed as a reactant (chemical producer)	391
	Processed as a formulation component (mixture producer)	<u>NA</u>
	Processed as an article component (article producer)	<u>NA</u>
	Repackaged (including export)	·· NA
	In storage at the end of the reporting year	
	Ste hots at I gallon each processed:	This Chemical
	86 gallers = 344 9t	is ilouize
	344 gt × 946 nd × 1.2 g × Jeg = 391 kg	because its soul life is too short

 $^[\ \]$ Mark (X) this box if you attach a continuation sheet.

Component Name	Supplier Name	Composition (specify p	age % n by Weigh precision, $5\% \pm 0.5\%$
tolure disocyante	Expanded Rubbar and Plantics Co: p	<80	tur
polyether polyois	Expanded Rubbar and Plantes, Corp.	<u> </u>	, tuk
		Total	100%

 $[\ \]$ Mark (X) this box if you attach a continuation sheet.

(2.04)	State the quantity of the listed substance that your facility manufa or processed during the 3 corporate fiscal years preceding the repor descending order.	ctured, i ting year	mported, in
<u>CBI</u>			
[_]	Year ending	$[\underline{T}]\underline{\underline{\mathfrak{T}}}]$	[8]]
	Quantity manufactured	AU	kg
	Quantity imported	NA	kg
	Quantity processed	391	kg
	Year ending	· [<u>]]</u>]	[<u>図</u>]し] Year
	Quantity manufactured	NA	kg
	Quantity imported	NA	kg
	Quantity processed	391	kg
	Year ending	$[\overline{\underline{\lambda}}]$ Mo.	[<u>₹</u>] <u> </u>
	Quantity manufactured	NA	kg
	Quantity imported	AU	kg
	Quantity processed	<u> 391 </u>	kg
2.05	Specify the manner in which you manufactured the listed substance. Cappropriate process types.	ircle all	
[<u>]</u>]	NA		
	Continuous process	• • • • • • • • •	1
	Semicontinuous process		2
	Batch process	• • • • • • • • •	3
[_]	Mark (X) this box if you attach a continuation sheet.		

				——————————————————————————————————————
(2.06) CBI	Specify the manner in appropriate process ty	which you processed pes.	the listed substance.	Circle all
[_]				
	Continuous process	• • • • • • • • • • • • • • • • • • • •		•••••
	Semicontinuous process	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
			• • • • • • • • • • • • • • • • • • • •	
(2.07) CBI	State your facility's substance. (If you ar question.)	name-plate capacity in a batch manufacture	for manufacturing or pr er or batch processor,	ocessing the listed do not answer this
[_]	Manufacturing capacity	•••••	······	NA kg/y
	Processing capacity .	* * * * * * * * * * * * * * * * * * * *		NA kg/y
			_	10/1
(2.08) <u>CBI</u>	manulactured, imported	 or processed at any 	quantity of the listed : time after your curresed upon the reporting ;	nt corporate fiscal
[_]		Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
	Amount of increase	NA	NA	LXK
	Amount of decrease	NA	NA	UK
[_]	Mark (X) this box if yo	u attach a continuati	ion sheet	
	- 7		on diffe.	

(2.09)	substance durin	argest volume manufacturing or processing procese, specify the number of days you manufactured at the reporting year. Also specify the averages type was operated. (If only one or two operated)	or processed	l the listed
<u>CBI</u>			Days/Year	Average Hours/Day
	Process Type #1	(The process type involving the largest quantity of the listed substance.)		
		Manufactured	NA_	NA
		Processed	369	2
	Process Type #2	(The process type involving the 2nd largest quantity of the listed substance.)		
		Manufactured	NA	NA_
		Processed	NA	NA_
	Process Type #3	(The process type involving the 3rd largest quantity of the listed substance.)		
		Manufactured	AU	NA_
		Processed	NA	<u>AUA</u>
<u>CBI</u>	chemical. Maximum daily in	Response not required for TDI eventory inventory inventory	the form of	ted a bulk kg kg
[_]	Mark (X) this bo	x if you attach a continuation sheet.		

<u>CBI</u>	means the sour	ed, or processed. The rce from which the bypr to the product (e.g., c	oducts, coproducts	s, or impurities :	are made or on product,
<i>L</i>	CAS No.	Chemical Name	Byproduct, Coproduct or Impurity ¹	Concentration (%) (specify ± % precision)	Source of By products, Co products, or Impurities
	¹Use the follo	wing codes to designat	e byproduct, copro	oduct, or impurity	
	Use the follo B = Byproduct C = Coproduct		e byproduct, copro	oduct, or impurity	
	B = Byproduct		e byproduct, copro	oduct, or impurity	
	B = Byproduct C = Coproduct		e byproduct, copro	oduct, or impurity	
	B = Byproduct C = Coproduct		e byproduct, copro	duct, or impurity	/:
	B = Byproduct C = Coproduct		e byproduct, copro	oduct, or impurity	
	B = Byproduct C = Coproduct		e byproduct, copro	oduct, or impurity	/:

[__] Mark (X) this box if you attach a continuation sheet.

a. Product Types ¹	b. % of Quantity Manufactured, Imported, or Processed		c. % of Quantity Used Captively On-Site	d.		
B	\00%	_	100%	Type of End-Users'		
						
		_				
<pre>Use the following code A = Solvent B = Synthetic reactant C = Catalyst/Initiator Sensitizer D = Inhibitor/Stabiliz Antioxidant E = Analytical reagent F = Chelator/Coagulant G = Cleanser/Detergent H = Lubricant/Friction agent I = Surfactant/Emulsif J = Flame retardant K = Coating/Binder/Adh</pre>	Accelerator/ Zer/Scavenger/ E/Sequestrant E/Degreaser E modifier/Antiwear	L = M = N = O = O = P = R = S = T = U = V = V = V = V = O = O = O = O = O = O	Moldable/Castable Plasticizer Dye/Pigment/Color Photographic/Reprand additives Electrodeposition Fuel and fuel add Explosive chemical Fragrance/Flavor Pollution control Functional fluids Metal alloy and a Rheological modif	n/Plating chemicals ditives als and additives chemicals chemicals s and additives additives		
² Use the following code I = Industrial CM = Commercial	CS = Cons	umer				

] explanation and an ex	b.	c.	d.
u ,	% of Quantity Manufactured,		
Product Types ¹	Imported, or Processed	% of Quant Used Capti On-Sit	vely
3	100°/0	1009	
		-	
¹ Ugo the following co	dog to doginate and		
Use the following cook A = Solvent B = Synthetic reactar C = Catalyst/Initiate Sensitizer D = Inhibitor/Stabil: Antioxidant E = Analytical reager F = Chelator/Coagular G = Cleanser/Deterger H = Lubricant/Frictic agent I = Surfactant/Emuls: J = Flame retardant K = Coating/Binder/Ac	nt or/Accelerator/ izer/Scavenger/ nt nt/Sequestrant nt/Degreaser on modifier/Antiwear	L = Moldable/C M = Plasticize N = Dye/Pigmen O = Photograph and additi P = Electrodep Q = Fuel and f R = Explosive S = Fragrance/T T = Pollution U = Functional V = Metal alloy W = Rheological	t/Colorant/Ink and addi ic/Reprographic chemica ves osition/Plating chemica uel additives chemicals and additives Flavor chemicals control chemicals fluids and additives y and additives l modifier
<pre>A = Solvent B = Synthetic reactar C = Catalyst/Initiate Sensitizer D = Inhibitor/Stabil: Antioxidant E = Analytical reager F = Chelator/Coagular G = Cleanser/Deterger H = Lubricant/Frictic agent I = Surfactant/Emuls:</pre>	nt or/Accelerator/ izer/Scavenger/ nt nt/Sequestrant nt/Degreaser on modifier/Antiwear ifier thesive and additives	L = Moldable/C M = Plasticize N = Dye/Pigmen O = Photograph and additi P = Electrodep Q = Fuel and f R = Explosive S = Fragrance/ T = Pollution U = Functional V = Metal allo W = Rheologica X = Other (spec	t/Colorant/Ink and addi ic/Reprographic chemica ves osition/Plating chemica uel additives chemicals and additives Flavor chemicals control chemicals fluids and additives y and additives l modifier cify)

a.	b.	c. Average % Composition of	d.	
Product Type ¹	Final Product's Physical Form ²	Listed Substance in Final Product	Type of End-Users	
<u>NA</u>	NA	NA	NA_	
Use the following o	codes to designate pro	oduct types:		
<pre>A = Solvent B = Synthetic react C = Catalyst/Initia</pre>	itor/Accelerator/	<pre>L = Moldable/Castable M = Plasticizer N = Dye/Pigment/Color 0 = Photographic/Repr and additives</pre>	ant/Ink and add	
Antioxidant E = Analytical reag F = Chelator/Coagul G = Cleanser/Deterg	ent ant/Sequestrant ent/Degreaser	<pre>P = Electrodeposition Q = Fuel and fuel add R = Explosive chemica S = Fragrance/Flavor</pre>	itives ls and additive chemicals	
<pre>agent I = Surfactant/Emul J = Flame retardant</pre>	sifier	T = Pollution control U = Functional fluids V = Metal alloy and ac W = Rheological modif	chemicals and additives dditives	
•		es X = Other (specify) _ e final product's physica	al form:	
A = Gas B = Liquid C = Aqueous solutio D = Paste E = Slurry F1 = Powder	F2 = Cry F3 = Gra n F4 = Oth G = Gel	stalline solid nules er solid		
	odes to designate the	type of end-users:		
<pre>I = Industrial CM = Commercial</pre>	CS = Con H = Oth	sumer er (specify)		

fy) Estimate the quantity of the listed substance used by your customers during the reporting year for use understed (i-iv). End Use rial Products al or mixture cial Products al or mixture	
fy) Estimate the quantity of the listed substance used by your customers during the reporting year for use understed (i-iv). End Use rial Products al or mixture cial Products al or mixture	
fy) Estimate the quantity of the listed substance used by your customers during the reporting year for use understed (i-iv). End Use rial Products al or mixture cial Products al or mixture	by your customers er each category kg/y
fy) Estimate the quantity of the listed substance used by your customers during the reporting year for use understed (i-iv). End Use rial Products al or mixture cial Products al or mixture	by your customers er each category kg/y
Estimate the quantity of the listed substance used by your customers during the reporting year for use understed (i-iv). End Use rial Products al or mixture	by your customers er each category kg/y
by your customers during the reporting year for use under isted (i-iv). End Use rial Products al or mixture	er each categorykg/y
rial Products al or mixture	kg/y
al or mixture cial Products al or mixture	kg/y
e cial Products al or mixture	kg/y
cial Products al or mixture	
al or mixture	kg/v
	kg/v
e	kg/y
er Products	
al or mixture	kg/y
e	kg/y:
oution (excluding export)	kg/y
	kg/y
ty of substance consumed as reactant	kg/yı
n customer uses	kg/yı
	bution (excluding export)

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

<u>CBI</u>	Specify the quantity purchased and the average price for each major source of supply listed. Product trad The average price is the market value of the product substance.	les are treated a	s nurchases.
·	Source of Supply	Quantity (kg)	Average Price (\$/kg)
	The listed substance was manufactured on-site.	NA	NA
	The listed substance was transferred from a different company site.	<u>NA</u>	_ AU
	The listed substance was purchased directly from a manufacturer or importer.	391	<u> 28.65</u>
	The listed substance was purchased from a distributor or repackager.	NA	NA
	The listed substance was purchased from a mixture producer.	NA	NA
3.02 CB1	Circle all applicable modes of transportation used to your facility.	deliver the lis	ted substance to
[_]	Truck	• • • • • • • • • • • • • • • • • • • •	
	Railcar	• • • • • • • • • • • • • • • • • • • •	2
	Barge, Vessel	• • • • • • • • • • • • • • • • • • • •	
	n: 1:	• • • • • • • • • • • • • • • • • •	4
	Pipeline		
	Plane	• • • • • • • • • • • • • • • • • • • •	
	Plane		5
	Plane		• • • • • • • • • • • •

, L	
3.03 a.	Circle all applicable containers used to transport the listed substance to your facility.
[_]	Bags 1
	Boxes
	Free standing tank cylinders 3
	Tank rail cars 4
	Hopper cars 5
	Tank trucks 6
	Hopper trucks 7
	Drums 8
	Pipeline
	Other (specify) in metal contains which we shipped in backs
b.	If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks.
	Tank cylinders MA mmHg
	Tank rail cars
	Tank trucks MmHg

[__] Mark (X) this box if you attach a continuation sheet.

average percent composition by weight of the listed substance in the mix amount of mixture processed during the reporting year. Average Composition by Weight Trade Name Supplier or Manufacturer Manufacturer Specify ± % precision) Exacted Rubbs < 80% Tost Component T	Amount Processe (kg/yr)
	391

reporting year in the for	listed substance used as a mof a class I chemical, class by weight, of the listed subs	ss II chemical, or nolumer, an
	Quantity Used (kg/yr)	% Composition by Weight of Listed Sub stance in Raw Materia (specify <u>+</u> % precisio
Class I chemical	391	~80 % ± UX
Class II chemical		
Polymer	<i>№</i> "	NA

SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

c	۵n	_	ro	1	Ιn	e t		110	+	i	۸n	
u	en	e	ıα		T 11	55 L	L	ИC	L	1	UI.	 ÷

If you are reporting on a mixture as defined in the glossary, reply to questions in Section 4 that are inappropriate to mixtures by stating "NA -- mixture."

For questions 4.06-4.15, if you possess any hazard warning statement, label, MSDS, or other notice that addresses the information requested, you may submit a copy or reasonable facsimile in lieu of answering those questions which it addresses.

PART A PHYSICAL/CHEMICAL DATA SUMM	MARY
------------------------------------	------

4.01 CBI	Specify the percent purity for the thr substance as it is manufactured, impor substance in the final product form fo import the substance, or at the point	ted, or processed. Mr manufacturing activ	leasure the purity of the vities, at the time vou
[_]	Manufacture		Process

Technical grade #1

NA % purity

NA % purity

Technical grade #2

NA % purity

NA % purity

NA % purity

NA % purity

Technical grade #3

NA % purity

NA % purity

NA % purity

NA % purity

(4.02)	Submit your most recently updated Material Safety Data Sheet (MSDS) for the listed substance, and for every formulation containing the listed substance. If you possess an MSDS that you developed and an MSDS developed by a different source, submit your version. Indicate whether at least one MSDS has been submitted by circling the appropriate response.
	Yes
	No 2
	Indicate whether the MSDS was developed by your company or by a different source.
	Your company 1
	Another source

[] Mark (X) this box if you attach a continuation sheet.

¹Major = Greatest quantity of listed substance manufactured, imported or processed.

,	
4.03	Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.
	Yes
	No
(4.04)	For each activity that uses the listed substance, circle all the applicable number(s)
CBI	corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the
<u>CBI</u>	final state of the product.

	Physical State						
Activity	Solid	Slurry	Liquid	Liquified Gas	Gas		
Manufacture	1	2	3	4	5		
Import	1	2	3	4	5		
Process	1	2	3	4	5		
Store	1	2	(3)	4	5		
Dispose	1	2	3	4	5		
Transport	1	2	3	4	5		

	Mark	(X)	this	box	if	you	attach	a	continuation	sheet.
--	------	-----	------	-----	----	-----	--------	---	--------------	--------

	Physical				he final		•	
	State		Manufacture	Import	Process	Store	Dispose	Tr
	Dust	<1 micron						
		1 to <5 microns				·		
		5 to <10 microns						_
	Powder	<1 micron						
		1 to <5 microns						
		5 to <10 microns						
	Fiber	<1 micron						
		1 to <5 microns						
		5 to <10 microns						_
ı	Aerosol	<1 micron						
		1 to <5 microns	-					
		5 to <10 microns						

 $[\ \]$ Mark (X) this box if you attach a continuation sheet.

SECTION 5 ENVIRONMENTAL FATE

PART A RATE CONSTANTS AND TRANSFORMATION PRODU	PART
--	------

a.	Photolysis:					
	Absorption spectrum coefficient (peak)	UK	(1/M cm)	at	NA	nm
	Reaction quantum yield, 6	UK		at	NA	_ nm
	Direct photolysis rate constant, k_p , at	UKK	1/hr		<u>)A</u> la	ititu
b.	Oxidation constants at 25°C:					
	For ¹ 0 ₂ (singlet oxygen), k _{ox}		LLK			1/M
	For RO ₂ (peroxy radical), k _{ox}					
c.	Five-day biochemical oxygen demand, BOD_5					
d.	Biotransformation rate constant:					
	For bacterial transformation in water, $k_b \dots$		UK			1/h
	Specify culture					
e.	Hydrolysis rate constants:					
	For base-promoted process, k_B		UK			1/M
	For acid-promoted process, k _A					
	For neutral process, k_N		UK			1/h
f.	Chemical reduction rate (specify conditions)_		lik			
g.	Other (such as spontaneous degradation)		w	-,		

 $[\ \]$ Mark (X) this box if you attach a continuation sheet.

PART	B 1	PARTITION COEFFICIENTS				
5.02) a.	Specify the half-lif	e of the listed subs	stance in the foll	lowing med:	ia.
		<u>Media</u>	Half-life (sp	pecify uni	ts)	
		Groundwater		<u>u</u>		
		Atmosphere		UK		
		Surface water		LXX		
		Soil		UK		
	b.	Identify the listed slife greater than 24	substance's known tr hours.		ucts that	have a half-
		CAS No.	Name	Half-life (specify unit	s)	Media
		Lik	NA	<u>iuc</u>	in	NA
		ux	NN	LAK	in	NA
		LIK	A.S.	LIK	in	NA
		UK	NA	LK	in	NA
5.03		cify the octanol-water			WK	at 25°
5.04		rify the soil-water pa			UK	at 25°
(5.05)		ify the organic carbo			NA	
	coef	ficient, K _{oc}			UK	at 25%
5.06)	Spec	ify the Henry's Law Co	onstant, H	·····	UK.	_ atm-m³/mole
[_]	Mark	(X) this box if you a	attach a continuation	n sheet		

Bioconcentration Factor	Species	<u>Test¹</u>
W.C.	UK	NA
UK	LAK.	NA
UK	UK	WA
¹ Use the following codes to des	ignate the type of test:	
F = Flowthrough S = Static		
,		

6.04 CBI	For each market listed below, state the listed substance sold or transferr	ne quantity sold and the	e total sal reporting y	es value of			
[_]	Market	Quantity Sold or Transferred (kg/yr)	Total S Value (
	Retail` sales						
	Distribution Wholesalers						
	Distribution Retailers						
	Intra-company transfer						
	Repackagers						
	Mixture producers						
	Article producers						
	Other chemical manufacturers or processors						
	Exporters						
	Other (specify)						
6.05 <u>CBI</u>	Substitutes List all known commercially feasible substitutes that you know exist for the listed substance and state the cost of each substitute. A commercially feasible substitute is one which is economically and technologically feasible to use in your current operation, and which results in a final product with comparable performance in its end uses.						
[_]	Substitute		Cos	t (\$/kg)			
	no known whoble substitute	e available		UA			
				<u>.</u>			
[_]	Mark (X) this box if you attach a cont	inuation sheet.					

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

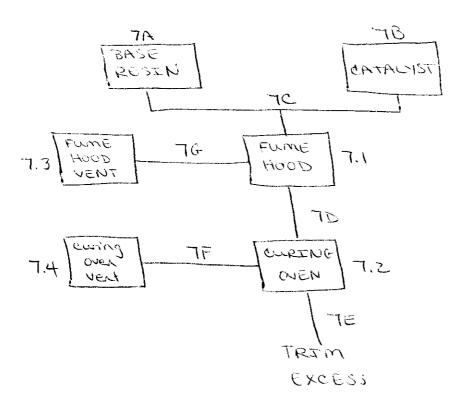
For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

In accordance with the instructions, provide a process block flow diagram showing the major (greatest volume) process type involving the listed substance.

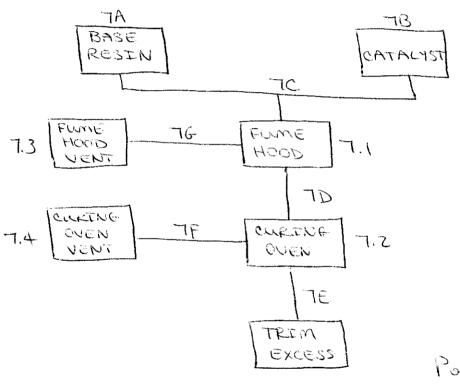
CBI

_ Process type Foaning Operation



 $[\underline{\hspace{1cm}}]$ Mark (X) this box if you attach a continuation sheet.

*	
7.03	In accordance with the instructions, provide a process block flow diagram showing approcess emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.
<u>CBI</u>	Process type Lang Operation
	TA TB



Possible TDI Emission points 7.3 fune Lood ved

7.4 curing over

 $^{[\,\}overline{\,\,\,\,\,\,}]$ Mark (X) this box if you attach a continuation sheet.

	Process type	Foan	ing Operation		
·			San Character		
	Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Compositio
	7.1	fune Lood	ambant	training	NA
	7.3	caring over	65-135	Listma	NA
		1000			
				- 70 a.	
					
	raktivniji najaga garaga g				

Description Physical State Flow TA base leave (TDI) 30 uses TIS costatept pound in costains TC two components mixed OL > SO TD mixture cured moves SO TE excess foam tommed SO TE emissions from over GU TC	J Pro	Process type Foaming Operation						
TC two composets mixed OL > SO TE excest foun tommed SO TF emissions from over GU GE CC = Gas (condensible at ambient temperature and pressure) GU = Gas (uncondensible at ambient temperature and pressure) SO = Solid SY = Sludge or slurry		Stream ID		Physical State ¹	Stream Flow (kg/			
TC two composed mand of the SO CATE excess form temmed SO CATE excess form temmed SO CATE emissions from over GA CATE emissions from hood GA CATE CATE Emissions from hood GA CATE CATE Emissions from hood GA CATE CATE CATE Emissions from hood GA CATE CATE CATE CATE CATE CATE CATE CAT		IA	base leve (TAT) so used	<u> </u>	381			
The excess from homed So we are entered to so we are excess from home of the e		113			<u>iik</u>			
TE excess foan tommed SO TF emissions from over GU TG emissions from hood GU TG emissions from over GU TG emissions from hood GU TG emissions from over GU TG emissions from hood		7C	two compracts mixed	<u>OL → SO</u>	<u>lik</u>			
The emissions from over the physical state for each process structure and pressure) GC = Gas (condensible at ambient temperature and pressure) GU = Gas (uncondensible at ambient temperature and pressure) SO = Solid SY = Sludge or slurry		TD	mixture quest in our	<u> </u>	UK			
Use the following codes to designate the physical state for each process structure of the control of the contro		TE	excess foan himmed	<u>so</u>	UK			
Use the following codes to designate the physical state for each process structure of the condensible at ambient temperature and pressure) GU = Gas (uncondensible at ambient temperature and pressure) SO = Solid SY = Sludge or slurry		TF	emissions from over	(~(x	unc			
GC = Gas (condensible at ambient temperature and pressure) GU = Gas (uncondensible at ambient temperature and pressure) SO = Solid SY = Sludge or slurry		7(5-	exissions from hood	((4	LIK			
<pre>GC = Gas (condensible at ambient temperature and pressure) GU = Gas (uncondensible at ambient temperature and pressure) SO = Solid SY = Sludge or slurry</pre>				-				
OL = Organic liquid IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)	GC GU SO SY AL OL	= Gas (conder = Gas (uncond = Solid = Sludge or s = Aqueous lid = Organic lid	nsible at ambient temperature and densible at ambient temperature a slurry quid quid	pressure) nd pressure)				

—¹	a. b. c. d. e.							
	a.	b.	2.	d.	е.			
	Process Stream ID Code	Known Compounds ¹	Concen- trations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentration (% or ppm)			
	TA	TDT	05°08 ×	AU	NA			
		polyether polyols	<u>720%</u>	NA_	NA			
	_TB	uk	- CCK	UK	NA			
	TC, D, E	polywethana Ram	100%	NA	- AU			
	<u>-1F, G-</u>	TOI	WK	UK	WC			
.06	continued b	elow						

7.06 (continued)

AU

¹For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component Assign an additive package number to each additive package and list this number in column b. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number 1		Componer Additive	nts of Package		Concentrations (% or ppm)
				- - 	
2					
3					
4				 	
5				·	
² Use the followi	ng codes to	designate ho	w the conc	entration was	determined:
A = Analytical E = Engineering	result				
³ Use the followi V = Volume W = Weight			v the conc	entration was	measured:

SECTION 8 RESIDUAL TREATMENT GENERATION, CHARACTERIZATION, TRANSPORTATION, AND MANAGEMENT

General Instructions:

For questions 8.04-8.06, provide a separate response for each residual treatment block flodiagram provided in question 8.01, 8.02 or 8.03. Identify the process type from which the information is extracted.

For questions 8.05-8.33, the Stream Identification Codes are those process streams listed in either the Section 7 or Section 8 block flow diagrams which contain residuals for each applicable waste management method.

For questions 8.07-8.33, if residuals are combined before they are handled, list those Stream Identification Codes on the same line.

Questions 8.09-8.33 refer to the waste management activities involving the residuals identified in either the Section 7 or Section 8 block flow diagrams. Not all Stream Identification Codes used in the sample answers (e.g., for the incinerator questions) have corresponding process streams identified in the block flow diagram(s). These Stream Identification codes are for illustrative purposes only.

For questions 8.11-8.33, if you have provided the information requested on one of the EPA Office of Solid Waste surveys listed below within the three years prior to your reporting year, you may submit a copy or reasonable facsimile in lieu of answering those questions which the survey addresses. The applicable surveys are: (1) Hazardous Waste Treatment, Storage, Disposal, and Recycling Survey; (2) Hazardous Waste Generator Survey; or (3) Subtitle D Industrial Facility Mail Survey.

[]	Mark	(X)	this	box	if	you	attach	а	continuation	sheet.
		·/				,		~	CONTINUALION	Sucer.

PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

8.01 CBI	In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01
[_]	Process type Foaring Operation

Polywethers
Foan
Foan
Production
Strong
Strong
Strong
Curry
Over
Vert
TF

Polywethers

8A
Residuals and
Empty Cars to Approved
Empty Cars to Approved
Disposal
Vers
Nood
Vert
TG

___ Mark (X) this box if you attach a continuation sheet.

PART B RESIDUAL GENERATION AND CHARACTERIZATION

_]	Process	type	• • •	Forenices d.	Operation		
	a.	b.	c.	d. ()	е.	f.	g.
	Stream ID Code	Type of Hazardous Waste	Physical State of Residual ²	Known Compounds ³	Concentra- tions (% or ppm) ^{4,5,6}	Other Expected Compounds	Estimated Concen- trations (% or ppm)
	TE.	R,T	64	<u> IdT</u>	CCK	<u>uk</u>	LIK
	76-	2, T	61	TOT	LKK	UK	<u>ux</u>
	Φ Δ	O 7-			Coffe		
	<u>8A</u>	14,1	<u> </u>	TUT	280°70 > 100°02 × 20°05 × 20°0	$\frac{AQ}{2c}$	_ NA
				polyetu jonyda	<u></u>	NA	NA
 5	 continue	 d helow		·			

8.05 (continued) ¹Use the following codes to designate the type of hazardous waste: I = Ignitable C = Corrosive R = Reactive E = EP toxicT = ToxicH = Acutely hazardous ²Use the following codes to designate the physical state of the residual: GC = Gas (condensible at ambient temperature and pressure) GU = Gas (uncondensible at ambient temperature and pressure) SO = SolidSY = Sludge or slurry AL = Aqueous liquid OL = Organic liquid IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene) 8.05 continued below

[] Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

NA

³For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component Assign an additive package number to each additive package and list this number in column d. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	Components of Additive Package	Concentrations(% or ppm)
1		
		-
2		
3		
4		
5		
	designate how the concentration	on was determined:
A = Analytical result E = Engineering judgement/	calculation	
8.05 continued below		
[_] Mark (X) this box if you at	tach a continuation sheet.	

Ω	05	(continued)	١
ο.	UD .	(continued)	Į

⁵Use the following codes to designate how the concentration was measured:

V = Volume

W = Weight

⁶Specify the analytical test methods used and their detection limits in the table below. Assign a code to each test method used and list those codes in column e.

NP

<u>Code</u>	Method	Detection Limi (± ug/l)
_1		
3		
4		
5		
6		

[_]	Mark	(X)	this	box	if	you	attach	а	continuation	sheet
-----	------	-----	------	-----	----	-----	--------	---	--------------	-------

	Process	type	• • •	Foani	<u>y 02</u>	exchion		
	a. Stream ID Code	b. Waste Description Code	c. Management Method Code ²	d. Residual Quantities (kg/yr)	Mana of Resi	gement dual (%) Off-Site	f. Costs for Off-Site Management _(per kg)	g. Changes i Managemen Methods
	TE	<u>1391</u>	ms (a)	CIK	100%			NA
	76	<u>1391</u>	m5(a)	UK	100%		WA	WA
•	<u>8A</u>	<u>A08, A09</u>	3 <u>T</u> 3 <u>T</u>	LIK	_0_	100%	UK	_ NА _ NА
-								
 1 2	Use the	codes provi	ded in Exhil	bit 8-1 to do	esignate e	the waste o	descriptions	

WASTE DESCRIPTION CODES

These waste description codes were developed specifically for this survey to supplement the descriptions listed with the RCRA and other waste codes. (These waste description codes are not regulatory definitions.)

WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA F, K, P, OR U WASTE CODE

A01	Spent solvent (F001-F005, K086)	
A02	Other organic liquid (E001-E005,)	(ABA

A03 Still bottom (F001-F005, K086)

A04 Other organic sludge (F001-F005, K086)

A05 Wastewater or aqueous mixture

A06 Contaminated soil or cleanup residue

A07 Other F or K waste, exactly as described A08 Concentrated off-spec or discarded product

A09 Empty containers

"Exactly as described" means that the waste matches the description of the RCRA waste code.

80

Solidified treatment residue

Other treatment residue (specify in Facility Notes")

Other untreated waste (specify in "Facility Notes")

INORGANIC LIQUIDS—Waste that is onmarily
norganic and highly fluid (e.g., aqueous), with
'ow suspended inorganic solids and low organic
content.

- 301 Aqueous waste with low solvents
- B02 Aqueous waste with low other toxic organics
- 803 Spent acid with metals
- 804 Spent acid without metals
- B05 Acidic aqueous waste
- 806 Caustic solution with metals but no cvanides
- B07 Caustic solution with metals and cyanides
- 808 Caustic solution with cyanides but no metals
- **B09** Spent caustic
- B10 Caustic aqueous waste
- 811 Aqueous waste with reactive suifides
- B12 Aqueous waste with other reactives (e.g., explosives)
- 813 Other aqueous waste with high dissolved solids
- B14. Other aqueous waste with low dissolved solids
- B15 Scrubber water
- B16 Leachate
- B17 Waste liquid mercury
- B18 Other inorganic liquid (specify in 'Facility Notes 1

INORGANIC SLUDGES-Waste that is primarily inorganic, with moderate-to-high water content and low organic content; pumpable.

- 819 Lime sludge without metals
- 820 Lime studge with metals/metal hydroxide sludge
- B21 Wastewater treatment sludge with toxic organics
- B22 Other wastewater treatment sludge
- B23 Untreated plating sludge without cyanides B24 Untreated plating studge with cyanides
- 825 Other studge with cyanides
- **B26** Sludge with reactive suifides
- B27 Sludge with other reactives
- 828 Degreasing sludge with metal scale or filings
- B29 Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
- 830 Sediment or lagoon dragout contaminated with organics
- 831 Sediment or lagoon dragout contaminated with inorganics only

- B32 Onlling mud
- Asbestos slurry or sludge 833 834
- Chloride or other brine sludge 835 Other inorganic studge (specify in Facility Notes)

INORGANIC SOLIDS—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpapie.

- 836 Soil contaminated with organics 837 Soil contaminated with inorganics only
- 838 Ash, slag, or other residue from incineration of wastes **R39** Other "dry" ash, slag, or thermal
- residue 840 "Dry" lime or metal hydroxide solids
- chemically "fixed" "Dry" time or metal hydroxide solids not 'fixed''
- **B42** Metal scale, filings, or scrap
- Empty or crushed metal drums or containers
- Battenes or battery parts, casings, cores 844
- 845 Spent solid filters or adsorbents
- **B46** Asbestos solids and debns 847
- Metal-cyanide salts/chemicals 848
- Reactive cyanide salts/chemicals **B49** Reactive sulfide salts/chemicals
- 850 Other reactive saits/chemicals **B51**
- Other metal saits/chemicals 852 Other waste inorganic chemicals
- **B53** Lab packs of old chemicals only
- 854 Lab packs of debris only **B**55 Mixed lab packs
- 856 Other inorganic solids (specify in 'Facility Notes")

INORGANIC GASES—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure.

857 Inorganic gases

ORGANIC LIQUIDS—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content.

- B58 Concentrated solvent-water solution **B59** Halogenated (e.g., ct.lonnated) solvent
- 860 Nonhalogenated solvent

61	Halogenated/nonhalogenated	solvent

- mixture **B62** Oil-water emulsion or mixture
- B63 Waste oil
- **B64** Concentrated aqueous solution of other organics
- **B65** Concentrated phenolics
- 866 Organic paint, ink. lacquer, or varnish
- 867 Adhesives or expoxies
- 868 Paint thinner or petroleum distillates
- **B69** Reactive or polymerizable organic liquid
- **B70** Other organic liquid (specify in "Facility Notes")

ORGANIC SLUDGES—Waste that is primarily organic, with low-to-moderate inorganic solids content and water content; pumpable.

- Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
- **B72** Still bottoms of nonhalogenated
- solvents or other organic liquids 873 Oily sludge
- Organic paint or ink sludge R74
- **B75** Reactive or polymerizable organics
- **B76** Resins, tars, or tarry sludge
- 877 Biological treatment sludge 878
- Sewage or other untreated biological sludge
- Other organic studge (specify in Facility Notes")

ORGANIC SOLIDS—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable.

- BAO Halogenated pesticide solid
- 881 Nonhalogenated pesticide solid
- 882 Solid resins or polymerized organics
- B83 Spent carbon
- **B84** Reactive organic solid
- **B85** Empty fiber or plastic containers
- 886 Lab packs of old chemicals only 887
- Lab packs of debns only
- 888 Mixed lab packs
- 889 Other halogenated organic solid
- Other nonhalogenated organic solid

ORGANIC GASES—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

891 Organic gases

EXHIBIT 8-2. (Refers to question 8.06(c))

MANAGEMENT METHODS

HANAGEHEN	I WEIHODS
M1 = Discharge to publicly owned	_
wastewater treatment works	Recovery of solvents and liquid organics
	for reuse
M2 = Discharge to surface water under	1SR Fractionation
NPDES	2SR Batch still distillation
M3 = Discharge to off-site, privately	3SR Solvent extraction
owned wastewater treatment works	4SR Thin-film evaporation
M4 = Scrubber: a) caustic; b) water;	5SR Filtration
c) other	6SR Phase separation
M5 = Vent to: a) atmosphere; b) flare;	7SR Dessication
c) other (specify)	8SR Other solvent recovery
M6 = Other (specify)	The state of the s
	Recovery of metals
TREATMENT AND RECYCLING	1MR Activated carbon (for metals
	recovery)
Incineration/thermal treatment	2MR Electrodialysis (for metals
<pre>1I Liquid injection</pre>	recovery)
2I Rotary or rocking kiln	3MR Electrolytic metal recovery
3I Rotary kiln with a liquid injection	4MR Ion exchange (for metals recovery)
unit	
4I Two stage	(101 //4/47)
5I Fixed hearth	recovery)
6I Multiple hearth	6MR Solvent extraction (for metals
7I Fluidized bed	recovery)
8I Infrared	7MR Ultrafiltration (for metals
9I Fume/vapor	recovery)
10I Pyrolytic destructor	8MR Other metals recovery
11I Other incineration/thermal	**
treatment	Wastewater Treatment
rreatment	After each wastewater treatment type
Reuse as fuel	listed below (1WT - 66WT) specify
1RF Cement kiln	 a) tank; or b) surface impoundment
	(i.e., 63WTa)
2RF Aggregate kiln	
3RF Asphalt kiln	Equalization
4RF Other kiln	1WT Equalization
SRF Blast furnace	
6RF Sulfur recovery furnace	Cyanide oxidation
7RF Smelting, melting, or refining	2WT Alkaline chlorination
furnace	3WT Ozone
8RF Coke oven	4WT Electrochemical
9RF Other industrial furnace	SWT Other cyanide oxidation
10RF Industrial boiler	that tyaniae onlaation
11RF Utility boiler	General oxidation (including
12RF Process heater	disinfection)
13RF Other reuse as fuel unit	6WT Chlorination
	7WT Ozonation
Fuel Blending	8WT UV radiation
1FB Fuel blending	
	9WT Other general oxidation
Solidification	Chamian 1 number 2 2 2 2 1
1S Cement or cement/silicate processes	Chemical precipitation 1
2S Pozzolanic processes	10WT Lime
35 Asphaltic processes	11WT Sodium hydroxide
4S Thermoplastic techniques	12WT Soda ash
5S Organic polymer techniques	13WT Sulfide
	14WT Other chemical precipitation
0 (====	
7S Other solidification	Chromium reduction
	15WT Sodium bisulfite
	16WT Sulfur dioxide

EXHIBIT 8-2. (continued)

MANAGEMENT METHODS

17WT Ferrous sulfate 18WT Other chromium reduction

Complexed metals treatment (other than chemical precipitation by pH adjustment)
19WT Complexed metals treatment

Emulsion breaking
20WT Thermal
21WT Chemical
22WT Other emulsion breaking

Adsorption
23WT Carbon adsorption
24WT Ion exchange
25WT Resin adsorption
26WT Other adsorption

Stripping 27WT Air stripping 28WT Steam stripping 29WT Other stripping

Evaporation
30WT Thermal
31WT Solar
32WT Vapor recompression
33WT Other evaporation

Filtration
34WT Diatomaceous earth
35WT Sand
36WT Multimedia
37WT Other filtration

Sludge dewatering
38WT Gravity thickening
39WT Vacuum filtration
40WT Pressure filtration (belt, plate
and frame, or leaf)
41WT Centrifuge
42WT Other sludge dewatering

Air flotation
43WT Dissolved air flotation
44WT Partial aeration
45WT Air dispersion
46WT Other air flotation

Oil skimming 47WT Gravity separation 48WT Coalescing plate separation 49WT Other oil skimming

Other liquid phase separation 50WT Decanting 51WT Other liquid phase separation

Biological treatment
52WT Activated sludge
53WT Fixed film-trickling filter
54WT Fixed film-rotating contactor
55WT Lagoon or basin, aerated
56WT Lagoon, facultative
57WT Anaerobic
58WT Other biological treatment

Other wastewater treatment
59WT Wet air oxidation
60WT Neutralization
61WT Nitrification
62WT Denitrification
63WT Flocculation and/or coagulation
64WT Settling (clarification)
65WT Reverse osmosis
66WT Other wastewater treatment

OTHER VASTE TREATMENT

1TR Other treatment 2TR Other recovery for reuse

ACCUMULATION

1A Containers 2A Tanks

STORAGE

1ST Container (i.e., barrel, drum)
2ST Tank
3ST Waste pile
4ST Surface impoundment

DISPOSAL

1D Landfill

2D Land treatment

5ST Other storage

3D Surface impoundment (to be closed as a landfill)

4D Underground injection well

Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

8.22 <u>CBI</u>	Describe the (by capacity) your process	incinerator	s that are us	sed on-site	to burn the r	esiduals id		
[_]		Ch	oustion amber ture (°C)	Temp	ation of perature pnitor	Residence Time In Combustion Chamber (seconds)		
	Incinerator	Primary	Secondary	Primary	Secondary	Primary	Secondary	
	1							
	2				***************************************			
	3							
	Indicate by circ	ling the app	ropriate resp	onse.	s been submit			
	No				ia for t		2	
B.23 <u>CBI</u> []	by circl Yes No	te to burn ck flow diag	Air Po Control of Solid Waste	llution Device e survey has	in your proce	Types Emission Avail	of response	
	Use the follo S = Scrubber E = Electrost O = Other (sp	wing codes t (include typ atic precipi	o designate of scrubber tator	the air poll				
[_]	Mark (X) this	box if you a	ttach a conti	nuation she	et.			

SECTION	q	MUBKED	EXPOSURE
SECTION	7	WULKER	CAPUSUKE

م	na	ra	1 1	'n	e t	r	10	+	i	Λn	c	
υE	:116	La	_ 1	. 41	31		ш	. L	1	OH	3	•

Questions 9.03-9.25 apply only to those processes and workers involved in manufacturing or processing the listed substance. Do not include workers involved in residual waste treatment unless they are involved in this treatment process on a regular basis (i.e., exclude maintenance workers, construction workers, etc.).

[_]	Mark (X)	this bo	x if	you	attach a	a	continuation	1	sheet.				
-----	----------	---------	------	-----	----------	---	--------------	---	--------	--	--	--	--

PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

<u>D</u>	ata are Ma Hourly	intained for Salaried	Year in Which Data Collection	Number Years Rec
Data Element	Workers	Workers	Began	Are Maint
Date of hire	<u> </u>	<u> </u>	1954	37
Age at hire	<u> </u>		1954	37
Work history of individual before employment at your facility	OA.	AU	NA	NA
Sex	*	×	1954	37
Race		×	1954	37
Job titles	<u> </u>		1954	37
Start date for each job title		<u>X</u>	1954	<u>3'ı</u>
End date for each job title	X	X	1954	37
Work area industrial hygiene monitoring data	X		1957	37_
Personal employee monitoring data	<u> </u>	<u>+</u>	1957	37
Employee medical history	<u> </u>	<u> </u>	1954	37
Employee smoking history			1954	37
Accident history	_ <u>X</u>	X	1957	37_
Retirement date			1954	37
Termination date		X	1954	37
Vital status of retirees	NA	NA	<u>NA</u>	NA
Cause of death data	<u> </u>	X	1954	37

	b.	с.	d.	e.
ctivity	Process Category	Yearly Quantity (kg)	Total Workers	Total Worker-Ho
anufacture of the	Enclosed	NA	NA	NA
isted substance	Controlled Release	NA	NA	NA
	0pen	NA	NA_	NA
n-site use as	Enclosed	NA	NA	_NA_
sactant	Controlled Release	391	<u>6</u>	3631.
	0pen	NA	NA	NA
On-site use as nonreactant	Enclosed	NA	NA	AU
	Controlled Release	AU	NA	NA
	0pen	NA	NA	NA
n-site preparation	Enclosed	NA	AU	NA
products	Controlled Release	NA	NA	NA
	0pen	NA	NA	NA
	a-site use as eactant	Controlled Release Open A-site use as Enclosed Controlled Release Open A-site use as Enclosed Controlled Release Open Controlled Release	Controlled Release Open Open NA Open Controlled Release Open Open	Controlled Release Open DA NA NA NA NA NA NA NA NA NA

Provide a descriptive joe encompasses workers who listed substance.	ob title for each labor category at your facility that may potentially come in contact with or be exposed to the
<u>=====================================</u>	
Labor Category	Descriptive Job Title
A	Structural Mesenther
В	
c	
D	
_ E	
F	
G	
Н	
I	
	attach a continuation sheet.

9.04	In accordance with the instructions, prindicate associated work areas.	rovide your process block flow diagram(s) and
CBI		
[_]	Process type + Oan	ning Operation
	TA	76
	BASE RESTN	CATACUST
	[KESTN]	
		10
	7.3 FUME TG	Fune - 1000 7.1 D
		(1)
	7.4 CURING TF	CONSTRUCT TO 2
	[VENT	
		TE
		TRIM
		EXCESS

FOAM

 $^[\ \]$ Mark (X) this box if you attach a continuation sheet.

an t	additional areas not	work area(s) shown in question 9.04 that encompass workers who in contact with or be exposed to the listed substance. Add any shown in the process block flow diagram in question 7.01 or s question and complete it separately for each process type.
<u>CBI</u>		
[_]	Process type	Foaning Creation
	Work Area ID	Description of Work Areas and Worker Activities
	1	
	2	Fune had worker jours natural its nota
	3	chering over water places material a over to aver
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	•	

92

CBI	and complete it separately for each process type and work area. Process type											
r1	Process type Foaming Operation											
	Work area .	• • • • • • • • • • • • • • • • • • • •										
	Labor Category	Number of Workers Exposed	Mode of Exposi (e.g., dir skin conta	rect	Physical State of Listed Substance ¹	Average Length of Exposure Per Day ²	Number of Days per Year Exposed					
	A	6	ski contact	Viskalosti	on OL, GU	A	269					
				-								
				 -								
					Prince							
	1,41,40				-							
	¹ Use the fol the point o	lowing codes t	o designate th	e physica	al state of t	the listed sul	ostance at					
	GU = Gas (tempe	condensible at rature and pre uncondensible rature and pre	essure) at ambient essure;	$ \begin{array}{rcl} AL &=& A \\ OL &=& O \end{array} $	Sludge or slu queous liqui rganic liqui mmiscible li	d d						
	SO = Solid	des fumes, vap	,	(9	specify phas 0% water, 10	es, e.g., % toluene)						
	'Use the fol	lowing codes t	o designate av	erage len	gth of expos	ure per day:						
	exceedi	than 15 minut ng 1 hour		ex	ceeding 4 ho	hours, but nurs hours, but n						
	C = Greater exceeding	than one hour ng 2 hours	, but not	ex	ceeding 8 ho eater than 8	urs						

CBI	and complete	e it separatel	e exposed to the l y for each process	type and work a	rea.	nis question			
[_]	Process type	2	Fearing	<u>Creative</u>		· · · · · · · · · · · · · · · · · · ·			
		• • • • • • • • • • • • • • • • • • • •			2				
	Labor Category	Number of Workers Exposed	Mode of Exposure (e.g., direct skin contact)	Physical State of Listed Substance ¹	Average Length of Exposure Per Day ²	Number of Days per Year Exposed			
	<u> </u>	6	noitealedni	60		369			
	4-5								
	¹ Use the fol the point o	lowing codes t f exposure:	o designate the ph	ysical state of	the listed sul	bstance at			
	GC = Gas (temper GU = Gas (temper include	condensible at rature and pre uncondensible rature and pre des fumes, vap	ambient S ssure) A at ambient C ssure; I	SY = Sludge or sl L = Aqueous liqu L = Organic liqu L = Immiscible l (specify pha	uid nid liquid nses, e.g.,				
	SO = Solid ² Use the foli	lowing codes t	o designate averag	90% water, 1 e length of expo	•				
	A = 15 minus B = Greater exceedin C = Greater		es, but not E , but not	 Greater than exceeding 4 h Greater than exceeding 8 h Greater than 	2 hours, but nours 4 hours, but nours				

9.07	METRILIER VASTURE I	egory represented in question 9.06 TWA) exposure levels and the 15-mi stion and complete it separately f	nuto nook ownomina lawala
CBI			
[_]	Process type	·· Foaning Count	Land
	Work area	·····	land 2
	Labor Category	8-hour TWA Exposure Level (ppm, mg/m ³ , other-specify)	15-Minute Peak Exposure Leve (ppm, mg/m³, other-specify)
	<u> </u>	W	UK
[_]	Wl- (W) .1.1	f you attach a continuation sheet.	

9.08	If you monitor worke	er exposur	e to the li	sted substa	nce, comp]	lete the fo	ollowing tab
<u>CBI</u>							
[_]	Sample/Test	Work Area ID	Testing Frequency (per year)	Number of Samples (per test)	Who	Analyzed In-House (Y/N)	Number o Years Reco Maintaine
	Personal breathing zone						
	General work area (air)						
	Wipe samples						
	Adhesive patches						
	Blood samples						
	Urine samples						
	Respiratory samples						
	Allergy tests	سيست ، پيپوسا					
	Other (specify)						
	Other (specify)						
	Other (specify)						
	Use the following constant A = Plant industrial B = Insurance carrie C = OSHA consultant D = Other (specify)	odes to de hygienis er	esignate who				

[_] Mark (X) this box if you attach a continuation sheet.

[_]	Sample Type		Sampling and Analy	tical Methodolo	ogy
				- 1	
9.10	If you conduct person specify the following	onal and/or ambieng information fo	ent air monitoring foor each equipment typ	or the listed soe used.	substance,
CBI	Favingent Tune 1	Data del au III		Averaging	
	Equipment Type ¹	Detection Limi	it' <u>Manufacturer</u>	Time (hr)	Model Num
P	70000				
					· · · · · · · · · · · · · · · · · · ·
			e personal air monit	oring equipmen	t types:
	<pre>A = Passive dosimet B = Detector tube</pre>				
	<pre>C = Charcoal filtra D = Other (specify)</pre>	tion tube with p	ump		
			e ambient air monito	ring equipment	types:
	<pre>E = Stationary moni F = Stationary moni</pre>	tors located wit	hin facility		
	G = Stationary moni	tors located at	plant boundary ecify)		
	r = other (specity)				
	² Use the following co	odes to designate	e detection limit un	its:	
	A = ppm B = Fibers/cubic cer C = Micrograms/cubic	ntimeter (f/cc) c meter (µ/m³)			

<u>BI</u>]		Test	Descri	ption				(wee	klv.	Frequ	ency , yearl	v. etc.
 -				<u>• </u>					,	non chiry	, yearr	y, etc.

							_					
							_					
	·		-				_				_4	
						-	_				****	
٠												

PART C ENGINEERING CONTRO	RT	С	ENGINEERING	CONTROLS	
---------------------------	----	---	-------------	----------	--

] Process type	$\frac{\Gamma{c}}{\Gamma_{c}}$	aning Open	nita	
Work area	• • • • • • • • • • • • • • • • • • • •			
Engineering Controls	Used (Y/N)	Year Installed	Upgraded (Y/N)	Year Upgrade
Ventilation:				
Local exhaust				
General dilution				
Other (specify)				
fune bood		LIK	NA	AU
Vessel emission controls				
Mechanical loading or packaging equipment				
Other (specify)				
tars	7	_UK	NA	NA
2 lenge far, and the	continue.			

 $[\ \]$ Mark (X) this box if you attach a continuation sheet.

PART	C	ENGINEERING	CONTROLS
LWUI	U	CIACTIACCUTIAC	CONTROLS

Process type	E.		<u> </u>	
Work area		ming Open		
Engineering Controls	Used (Y/N)	Year Installed	Upgraded (Y/N)	Year Upgrad
Ventilation:				
Local exhaust	NA	NA	NA	NA
General dilution	NA	<u>NA</u>	NA_	<u>NA</u>
Other (specify)				
over is verted	<u> </u>	CXC	NA	<u>N</u> P
Vessel emission controls	NIV	NA	NA_	NA
Mechanical loading or packaging equipment	NA_	<u>AW</u>	NA	NA
Other (specify)				
frains	4	U.K.	NA	NA

 $[\ \]$ Mark (X) this box if you attach a continuation sheet.

2.13)	Describe all equipment or process modifications you have meanior to the reporting year that have resulted in a reduct the listed substance. For each equipment or process modified the percentage reduction in exposure that resulted. Photocomplete it separately for each process type and work area	ion of worker exposure ication described, sta
<u>_</u>]	Process type	
	Work area	
	Equipment or Process Modification	Reduction in Worke Exposure Per Year (

PART D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

(9.14) <u>CBI</u>	Describe the personal protective and safety equin each work area in order to reduce or elimina substance. Photocopy this question and complet and work area.	isto thoir ornoguma to the liming	
[_]	Process type Framing Of	Berotein.	
	Work area		
		Wear or	
	Equipment Types	Use (Y/N)	
	Respirators	<u> </u>	
	Safety goggles/glasses	1	
	Face shields	<u> </u>	
	Coveralls	N	
	Bib aprons		
	Chemical-resistant gloves		
	Other (specify)		
	dest masks		

[_]	Mark	(X)	this	box	if	you	attach	а	continuation	sheet.
-----	------	-----	------	-----	----	-----	--------	---	--------------	--------

PART	D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT
9.14) CBI	Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.
[_]	Process type Foaring Operation
	Work area 2
	Wear or Use Equipment Types (Y/N)

Equipment Types	wear or Use (Y/N)
Respirators	2
Safety goggles/glasses	
Face shields	N
Coveralls	<u>N</u>
Bib aprons	
Chemical-resistant gloves	
Other (specify)	
dust main	

[__] Mark (X) this box if you attach a continuation sheet.

(9.15) JP	respirators tested, and	use respirators when we, the work areas when used, the average use the type and frequence separately for each p	re the respiratinge, whether or	ors are us	ed, the type	of
[1	Process type	<u>.</u>				
(,	Work Area	Respirator Type	Average Usage ¹	Fit Tested (Y/N)	Type of Fit Test	Frequency of Fit Tests (per year)
	Use the fol A = Daily B = Weekly C = Monthly D = Once a E = Other (year	nate average u	sage:		
		lowing codes to design	nate the type o	of fit test	::	

	Describe all of the work eliminate worker exposure authorized workers, mark monitoring practices, pro	e to the listed s areas with warni wide worker trai	ubstance (e.g ng signs, ins ning programs	., restrict e ure worker de . etc.). Pho	ntrance only to tection and tocopy this
CBI	question and complete it	separately for e	ach process t	ype and work	area.
[_]	Process tune				
	Process type ———————————————————————————————	same de	witier		
	Work area	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	<u>I</u> and	3
	Cooker in travia	d is labor	train trace	2 1	
	assluya loca l	d it labour	the free of	Contract Con	
	the grant	so fining un			
9.20	Indicate (X) how often you leaks or spills of the list	sted substance.	Photocopy thi	ask used to cl is question an	lean up routine nd complete it
9.20	Indicate (X) how often you leaks or spills of the list separately for each process. Process type	sted substance.	Photocopy thi	ask used to clis question and	lean up routine nd complete it
9.20	separately for each proces Process type Work area	Less Than	Photocopy this area.	is question an	More Than 4
9.20	Process type Work area Housekeeping Tasks	sted substance. ss type and work	Photocopy this area.	is question and	nd complete it
9.20	Process type Work area Housekeeping Tasks Sweeping	Less Than	Photocopy this area.	is question an	More Than 4
9.20	Process type Work area Housekeeping Tasks Sweeping Vacuuming	Less Than	Photocopy this area.	is question an	More Than 4
9.20	Process type Work area Housekeeping Tasks Sweeping	Less Than	Photocopy this area.	is question an	More Than 4
9.20	Process type Work area Housekeeping Tasks Sweeping Vacuuming	Less Than	Photocopy this area.	is question an	More Than 4
9.20	Process type Work area Housekeeping Tasks Sweeping Vacuuming Water flushing of floors Other (specify)	Less Than	Photocopy this area.	is question an	More Than 4
9.20	Process type Work area Housekeeping Tasks Sweeping Vacuuming Water flushing of floors	Less Than	Photocopy this area.	is question an	More Than 4
9.20	Process type Work area Housekeeping Tasks Sweeping Vacuuming Water flushing of floors Other (specify)	Less Than Once Per Day	Photocopy this area. 1-2 Times Per Day	3-4 Times Per Day	More Than 4 Times Per Day

[_] Mark (X) this box if you attach a continuation sheet.

9.21	Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?
	Routine exposure
	Yes
	No
	Emergency exposure
	Yes
	No
	If yes, where are copies of the plan maintained?
	Routine exposure:
	Emergency exposure:
_	Response not required for TOT
9.22	Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.
	Yes\
	No
	If yes, where are copies of the plan maintained?
	Has this plan been coordinated with state or local government response organizations Circle the appropriate response.
	Yes
	No
9.23	Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.
	Plant safety specialist
	Insurance carrier
	OSHA consultant
	Other (specify)
	Response not required for That
	Mark (X) this box if you attach a continuation sheet.

SECTION 10 ENVIRONMENTAL RELEASE

General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the releas is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and thus, does not have an RQ, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that ar equal to or greater than the RQ. The facility may have answered these questions or simila questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RO.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

10.01 CBI	Where is your facility located? Circle all appropriate responses.
[_]	Industrial area
	Urban area
	Residential area
	Agricultural area
	Rural area
	Adjacent to a park or a recreational area
	Within 1 mile of a navigable waterway
	Within 1 mile of a school, university, hospital, or nursing home facility 8
	Within 1 mile of a non-navigable waterway9
	Other (specify)10

10.02	Specify the exact location of your facility (from central point where process unit is located) in terms of latitude and longitude or Universal Transverse Mercader (UTM) coordinates.					
	Latitude	••••••	_37	ZS N'		
	Longitude	• • • • • • • • • • • • • • • • • • • •	132 . 3	<u>. w'</u>		
	UTM coordinates Zone	, North	ning, E	Casting		
10.03	If you monitor meteorological condithe following information.	ditions in the vicin	nity of your fac	ility, provide		
	Average annual precipitation	••••••		inches/yea		
	Predominant wind direction	••••••				
		et required !	TIVE			
10.04	Indicate the depth to groundwater	below your facility	0			
	Depth to groundwater		•			
				meters		
10.05 <u>CBI</u>	For each on-site activity listed, indicate (Y/N/NA) all routine releases of the listed substance to the environment. (Refer to the instructions for a definition of Y, N, and NA.) Environmental Release					
	On-Site Activity	Air	Water	Land		
	Manufacturing	NA	NA	_NA		
	Importing	NA	NA	NA		
	Processing		N			
	Otherwise used	NA	74	NA		
	Product or residual storage	<u> </u>	_ N			
	Disposal	N	2	N		
į	Transport	N.X	111	_ NA		
] Ma	ark (X) this box if you attach a co	ntinuation sheet.				

10.06

80/20	TDI	Mixture	Only
-------	-----	---------	------

10.06	Provide the following information for the liste of precision for each item. (Refer to the inst an example.)	d substance and specif ructions for further e	y the level xplanation and
CBI			
[_]			
_	Quantity discharged to the air	UK	kg/yr ± <u>WA</u>
	Quantity discharged in wastewaters	NA	kg/yr ± NA
	Quantity managed as other waste in on-site treatment, storage, or disposal units	NA	kg/yr ± NA
	Quantity managed as other waste in off-site treatment, storage, or disposal units	ÜK	kg/yr <u>+ NA</u>

 $[\ \]$ Mark (X) this box if you attach a continuation sheet.

(10.08) (CBI	process block or residu	echnologies used to minimize release of m containing the listed substance as id ual treatment block flow diagram(s). P tely for each process type.	entified in vour
[_]	Process type	Loaning Operation	
		• • • • • • • • • • • • • • • • • • • •	
	Stream ID Code	Control Technology	Percent Efficiency
	<u>NA</u>		

BI residual treatment blo source. Do not includ	Identify each emission point source containing the listed a Stream ID Code as identified in your process block or ck flow diagram(s), and provide a description of each point e raw material and product storage vents, or fugitive emission that leaks). Photocopy this question and complete it separately
Process type	Loaning Creation
Point Source ID Code	Description of Emission Point Source
17	enissions from aning over
76	emissions from from hood

114

Point Source ID Code	Physical State ¹	Average Emissions (kg/day)	Frequency ² (days/yr)	Duration ³ (min/day)	Average Emission Factor	Maximum Emission Rate (kg/min)	Maximum Emission Rate Frequency (events/yr)	Max Emi R Dur (min
75		UK	<u> </u>	90	LIK	<u>UK</u>	LKK	
7(-		UK	00k-	_15	uc	UK	UK	
	-						· · · · · · · · · · · · · · · · · · ·	
								
¹ Use the G = Gas	following ; V = Vapor	codes to design; P = Particu	gnate physical late; A = Aero	state at the	point of rel r (specify)	lease:		
			vel of emission					

	Height(m)	(at outlet)	Exhaust Temperature (°C)	Emission Exit Velocity (m/sec)	Building Height(m) ¹	Building Width(m) ²	V T
<u> 7</u> F	LIK	0.8	LUC	LLK	<u> </u>	<u> 295</u>	
16-	· UK	0.4	ambiert		9	<u> </u>	_\
-							
				~~~~			

(10.12) CBI	arperioditon for each tollic Sollec	d in particulate form, indicate the par E ID Code identified in question 10.09. Ete it separately for each emission poi	
[_]	Point source ID code	<u>N</u> A	
	Size Range (microns)	Mass Fraction (% ± % pr	ecision)
	< 1	NA	
	≥ 1 to < 10	NA	
	≥ 10 to < 30	NA	
	≥ 30 to < 50	NA	
	≥ 50 to < 100	NA	
	≥ 100 to < 500	NA	
	≥ 500	NA	
		Total = 100%	

## PART C FUGITIVE EMISSIONS

(10.13)	Equipment Leaks Complete types listed which are exposed to the specified the component. Do this for residual treatment block floot exposed to the listed sprocess, give an overall peexposed to the listed substfor each process type.  Process type  Percentage of time per year type	weight percer each procelow diagram(substance.ercentage of	ent of the ss type is so no	destance a de listed dentified ot includ s a batch year tha s questio	and which substance in your e equipme or inter t the pron and com	are in see passing process bent types mittently cess type plete it	through clock or that are operated is separatel
	type	that the I	isted sub	stance is	exposed	to this p	rocess
						_	
		Number	of Compos	nents in	Service b	y Weight	Percent
		Less	or Liste	d Substan	ce in Pro	cess Stre	
	Equipment Type	than 5%	5-10%	11-25%	26-75%	76-99%	Greater than 99%
	Pump seals ¹						than yy
	Packed						
	Mechanical						
	Double mechanical ²		<del></del>				
	Compressor seals ¹						
	Flanges						····
	Valves					<del></del>	
	Gas ³						
	Liquid						
	_						
	Pressure relief devices ⁴ (Gas or vapor only)						
	Sample connections						
	Gas						
	Liquid		<del></del>	*			
1	Open-ended lines ⁵ (e.g., purge, vent)						
	Gas						
	Liquid						
	List the number of pump and compressors	compressor	seals, ra	ather than	the numl	ber of pur	nps or
10.13	continued on next page						
,—, _v	1 (77)					<del></del>	
ıj Ma	ark (X) this box if you attac	ch a continu	ation she	eet.			

couble mechanical seter than the pump so detect failure of a "B" and/or an "S itions existing in the all pressure related devices so closed during normations  The Relief Devices so the are related devices in service are consumer under column a.  Number of the are related devices in services are related devices in service are related device	the section of the value of the	eal system, the spectively alve during nor evices in service veration that we controls Comfied in 10.13	e and a mal	arrier fluid syst coperation including those d be used during	th a sensor (S) that em, or both, indicat equipped with maintenance
rt all pressure rel rol devices s closed during norm ations  ure Relief Devices to ure relief devices to es in service are co "None" under column a. Number of	with Cidenti	evices in servi	voul uple to	including those d be used during te the following indicate which p re relief device	table for those ressure relief is not controlled,
s closed during normations  ure Relief Devices to the service are common are column a.  Number of	with (identiontrol	controls Comfied in 10.13 led. If a pre	oul ple to	d be used during te the following indicate which pure relief device	table for those ressure relief is not controlled,
ure Relief Devices of ure relief devices of es in service are co "None" under column a. Number of	with (identiontrol	controls Com fied in 10.13 led. If a pre b. rcent Chemical	iple to essu	ete the following indicate which p are relief device	table for those ressure relief is not controlled,  d. Estimated
es in service are co "None" under column a. Number of	ontrol	led in 10.13 led. If a pre b. rcent Chemical	to essu	indicate which p re relief device c.	ressure relief is not controlled,  d. Estimated
Number of	Pe	rcent Chemical			Estimated
	Pe	rcent Chemical			Estimated
ure Relief Devices	_	in Vessel	•	Control Device	Control Efficiency
			,		
					,
					-
A CHILLIER MUNDEL	OF COL	WODENTS IN SAT	ord rvic	the percent rang se by Weight Perc	ge given under the ent of Listed
	ince" (e.g., <5%, 5- A assigns a control	A assigns a control efficulture discs under normal ency of 98 percent for em	A assigns a control efficiency of 100 purpose discs under normal operating contents of the control of the control of the control operating contents of the control of the c	A assigns a control efficiency of 100 percupture discs under normal operating conditions of 98 percent for emissions routed to	A assigns a control efficiency of 100 percent for equipment upture discs under normal operating conditions. The EPA a ency of 98 percent for emissions routed to a flare under n

_____

 $[\ ]$  Mark (X) this box if you attach a continuation sheet.

Process type		••••••			
Tanakan m	Leak Detection Concentration (ppm or mg/m³) Measured at Inches	- Detection	of Leak Detection	Repairs Initiated (days after	Repairs Completed (days afte
Equipment Type	from Source	<u>Device</u>	(per year)	detection)	initiated)
Pump seals					
Packed					
Mechanical					
Double mechanical					
Compressor seals					
Flanges					
Valves					
Gas				÷	
_ Liquid					
Pressure relief devices (gas or vapor only)					
Sample connections		<del></del>			
Gas					
_ Liquid					
Open-ended lines		-			
Gas					
Liquid				·	
 ¹ Use the following coordinate POVA = Portable organists FPM = Fixed point more O = Other (specify)	nic vapor analyzer nitoring	etection de			

• • •



Mark ()	[_] GBI			atment block	_	Vessel		Vessel		Operating	_				
(X) this		Vessel Type	Floating Roof Seals ²	Composition of Stored Materials ³	Throughput (liters per year)	Filling Rate (gpm)	Filling Duration (min)	Inner Diameter (m)	Vessel Height (m)	Vessel Volume	Vessel Emission Controls	Design Flow Rate ⁵	Vent Diameter (cm)	Control Efficiency (%)	Basis for Estimate
xod				- Produce											
if y				•								-			
you a								-						-	
ttach															
h a															
cont														-	
continuation sheet.		F = CIF = NCIF = EFR = P = U =	= Fixed ro = Contact = Nonconta = External = Pressure = Horizont = Undergro	internal flo oct internal floating ro vessel (ind al und	ating roof floating roo of icate pressu	f re rating	<b>;</b> )	MS1 MS2 MS2F LM1 LM2 LMW VM1 VM2 VMW	= Mech = Shoot = Rim- = Liqu = Rim- = Weat = Vapo = Rim- = Weat	nanical -mounted id-mounted incounted ther shi mounted mounted ther shi	shoe, printed secondary  I, secondary  I shield  I shield  I secondary  I secondary  I secondary	mary y y ent fil ent fill	lled seal, led seal,	primary	<u> </u>
		40ther	ite weight than floa	percent of ting roofs	the listed s	ubstance.	Include	the total	volati	le orga	nic conten	t in pa	renthesis		
		_		rate the emi	ssion contro	l device	was design	ned to han	dle (sn	ecify f	]ow rate ⊪	nite)			
		⁶ Use th	ne followi	ng codes to	designate bas	sis for e	stimate of	control	efficie	ncy:	iow rate o	14(3)			
		C = Ca	lculation mpling												

## PART E NON-ROUTINE RELEASES

Release		ate arted	Time (am/pm)	Date Stopped	Time (am/pm)
1		NA_	NA	NA	_NA
2					
3		· · · · · · · · · · · · · · · · · · ·			
4					
5		<del></del>			
6					
Release	Wind Speed (km/hr)	Wind Direction	Humidity (%)	Temperature (°C)	Precipitatio (Y/N)
Release				(°C)	
_					
1			<del></del>		
2					
3					
2 3 4					
2 3 4 5					
2 3 4					
2 3 4 5					

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.	U.S. Department of Labor Occupational Safety and Health Administration (Non-Mandatory Form) Form Approved OMB No. 1218-0072
Stafoam P 1106, Component T	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that
Section I	
Manufacture's Name Expanded Rubber & Plastics Corp.	Emergency Telephone Number CHEMTREC (800) 424-9300
Address (Number, Street, City, State, and ZIP Code) 14000 South Western Avenue	Telephone Number for Information (213) 324-6692 or (213) 321-4260
Gardena, CA 90249	Date Prepared 5-19-87
	Signature of Preparer (optional)
Section II — Hazardous ingredients/identity information	g grant to the contract of the
Hazzirdous Components (Specific Chemical Identity; Common Name(s))	Other Limits OSHA PEL ACGIH TLV Recommended % (cpt)
Toluene Diisocyanate 80/20	0.02 ppm 0.005 ppm N/A < 80
Polyether Polyols	N/A $N/A$ $N/A$ $> 20$
	TO A CONTRACTIONAL OF THE PATIONAL OF
•	9,8,9,9,0,12,12,12,3,4,5,6
	2/1/1/2/3/1988 AM PA 7/8/0/1/1/1/2/2/3/4/5/6
Bouing Point 480°F	AM PA 1988  7,8,0,1,0,0,1,2,1,2,3,4,5,6
Approx. 480°F  Approx. 480°F  (approx. 480°F  (approx. 60°F)  0.01	Specific Gravity (H ₂ O = 1) Approx. 1.2    Melting Point   N/A
Approx.   480°F	Specific Gravity (H ₂ O = 1)   Approx.   1.2
Approx. 480°F  Approx. 0.01  Approx. 0.01  Approx. 620°C (68°F) 0.01  Approx. 0.01  Approx. 0.01  Approx. 0.01	AM PA 1988  7.8 () [ Welting Point H/A Prox.   1.2    Melting Point H/A   Evaporation Rate (Buryl Acetate = 1)
Approx.  Approx.  (a 20°C (68°F)  (apor Density (AiR = 1)  Constituting in Water  Reacts with water generating CO ₂ .  Appearance and Coor  Pale yellow viscous liquid. Strong pung	AM PA 1988  7.8 () [ Welting Point H/A Prox.   1.2    Melting Point H/A   Evaporation Rate (Buryl Acetate = 1)
Approx.  App	AM PA 1988  7.8 () [ Welting Point H/A Prox.   1.2    Melting Point H/A   Evaporation Rate (Buryl Acetate = 1)
Approx. 480°F  Vacor Pressure (mm Hg: @ 20°C (68°F) 0.01  Vacor Density (AiR = 1) 6.0  Solublity in Water Reacts with water generating CO2.  Appearance and Coor Pale yellow viscous liquid. Strong pung  Section IV — Fire and Explosion Hazard Data  Fiash Point (Alernox Used)	Specific Gravity (H ₂ O = 1) Approx. 1.2    Metting Point   H/A   Evaporation Rate   Buryl Acetare = 1)   N/A   Spent odor.   Let   O.9   9.5
Approx.  App	Specific Gravity (H ₂ O = 1) Approx. 1.2    Metting Point   N/A   Evaporation Rate (Buryl Acetare = 1)   N/A   Gent odor.   LEL   O.9   9.5   Teathing apparatus & turnout gear. Oxides

container. Cool down containers with water spray

Section V -	Reactivity Data				
Stability	Unstable		Conditions to Avoid Temperatures above	ve ab	ove 40°C for extended periods of time.
	Stable	x			
Incompatibility ( Basic com	Meterials to Avoid) pounds, caus	tic	soda, tertiary am	ines,	water.
Hazaroous Decor	nposition or Byprodu	as 1des	of Carbon and Ni	troge:	a. HCN.
Hazardous Polymenzation	May Occur	X			s that react with Isocyanates TY & HEALTH
r orymentation	Will Not Occur		the second second second second second		
Section VI -	Health Hazard	Data			JUN 8.5 1988
Route(s) of Entry:	innai X	ation?	Si	dn? X	Ingestion? Mill 7 8 5 6 6 11 12 12 12 13 14 15 16
Hearn Hazards // Vapors in	cure and Chronici		se severe irritat		f respiratory tract. Prolonged
exposure	nay cause pu	1mon	ary edema, chronic	c lun	g impairment. Liquid contact
causes se	rious skin a	nd e	ve burns. " "		policy of the control of the companies of the second process of the second of the control of the
Caronogenicity:				FC Mon	ographs? OSHA Regulated?
A nationa doses. I	NTP progra	m sh rcin	owed TDI to be car ogenic in a 2 year	cino inh	genic when given to rats in max, tolerated alation study. TDI is included in the NTP
Signs and Symbo Difficult	oms of Exposure , labored br	eath	ing, asthma-like	attac	ks in sensitive persons, severe
irritatio	ı of skin, e	ye d	amage, or TDI sens	sitiz	ation.
Medical Condition Ganerally Aggray	s ned by Exposure	Res	piratory bronchia	1 con	ittions. Skin sensitivity.
			* *** ** ** ** ** ** ** ** ** ** **		and the second of the second o
prepra or	water. Du	NUL	induce vomiting.	Get m	min. Get medical attention. Skin: minated clothing. Ingestion: Give edical attention. Inhalation: Move to
fresh air	. Give oxyg	en i	f necessary, Get	med i	cal attention.
			e Handling and Use		
Stees to Se Take	n in Case Material E crew must fu	: не:еа	sed or sowed rotective equipme	nt	Absorb material with sawdust or
					of 90% water, 8% concentrated ammonia,
and 2% det	ergent. Sh	ovel	it into open top	drum	s and remove to well ventilated area.
Waste Olsbosal M Disposal	errod of waste mus	t be	done in accordan	ce wi	th Federal, State and
Local envi	ronmental c	ontr	ol regulations.		<u> </u>
Granzumans to A.	Taken in Heralica	and St	oring	cool	olaces at temperatures between 70-90°F.
Other Precautions	This pr	oduc	t reacts with wat	er &	other substances generating CO ₂ gas
			on is suspected.	nu. au	
	- Control Meas	<del></del>			
Resciratory Prote	tion (Specify Type)	Sel	f-contained breat	hing	apparatus, gas masks equipped with
organic ca	rtridges, m Locai Exhausi	asks	with external ai	r sou	rces. Secal TDI vapors are heavier than air. Design exhaust systems accordingly.
}	Mechanical (General	41	ES		Other NONE
Protective Gioves	egigtant fu		or plastics	Eye P	orecom Fitted goggles or face shields safety glasses.
Citiar Protective	Ciothing or Equipme	rrt			
Coveralls Workeygranic or	<u>boots, rub</u> scies Do no clean at al	ber t ea	aprons. t, drink, or smok	e in	working areas. Keep clothing clean and

.0)	
Marcial Salety Data Sheet  May to used to comply with  OSHA's Hazard Communication Standard.  23 CFF 1910.1200. Standard must be  required for specific requirements.	U.S. Department of Labor Occupational Safety and Health Administration (Non-Mandatory Form) Form Approved OMB No. 1218-0072
STAFDAM 17 1106	Note: Plank spaces are not permitted. I any item is not societies, or no information is available, the space must be mented to indicate that.
- Section I TO THE COMPONENT TO	and the state of t
Manneauers Hame Expanded Rubber & Plastics Corp.	CHEMITEC (800) 424-9300
Andress (Number, Street City, Size, and ZIP City) 14000 South Western Avenue	Telechane Number for Information (213) 321-4260
Gardens, CA 90249	0ma frecared 5-19-c7
	Signature of Preparer (oppose)
· Section II — Hazardous Ingredients/Identity Information	
*Hazzrezus Components (Specific Chemical Idamiry: Common Nameral)	OSHA PEL ACCILI TLY Recommenced % (constraint
	-0.02 ppm 0.005 ppm - N/A < 80 -
Polyether Polvols	N/A $N/A$ $N/A$ $N/A$ $N/A$
	SACETY RECORDS ADMIN
and the second of the second o	SASE I Y RE TAIRUS ADMIN
	NIG-29 1989
	The state of the s
The state of the s	718191111121213141516
Section III — Physical/Chemical Characteristics	
Econg Pork Approx. 480°F	Special Gravity (HaD = 1) Approx
Vapor Freezyra (mm Hg.: @ 20°C (68°F)	Mening Form
Vapor Censuv (A/R = 1) 6.0	:Bury Acress = 1) N/A
Source in Water Reacts with water generating CO2.	
Pale yellow viscous liquid. Strong pung	genr odor.
Section IV — Fire and Explosion Hazard Data	
Fash Four Glainos Usadi 260 F PMCC	7. By Volume 0.9 9.5
Exenquising Media Water fog, CO2, Dry chemical.	
Eire Fighters must wear self-contained by	reathing apparatus & turnout gear. Oxides of
Thon, Nitrogen Isocyanate vapors HCM, I	HCL will be generated.
	e CO, which may cause explosion of closed
container. Cool down containers with was	
(Regroduce (ocally)	CEHA 174, Saot, 1983

Section V	- Reactivity Oata	•		•	•				* *	
Eurolog	Unstable	Constron	u to Awa eractures ab	ove ab	ove 40	o _C for	extend	ed per:	Lods of	tine.
18	0°0° A	l x							· .	
BESIC C	Ompounds, caus	tic soda,	tertiary a	mines,	water.		· BAFI	TYREC	ORDS AI	
	ACC VENOUS, ON		Thon and N	1+====	יייי לורייי				٠٠٠ م دمر د	
arzaroous Olymenzacion	May Cope	X Water	& Other pi	roducts	e etae	*****	edeb Ta	AUG	39 19 <u>89</u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Will Hox Coour		d other pr	101000	·	LEACE				PM
armon VI	— Health Hozard	! !					315	ຼຸ້ ເອງທຸກເກັ	21121314	<u>1516</u>
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	inhalation may e may cause pu									
	serious skin a				LEBEL	.rment.	Ligui	a cont	act	
renogenes				WFC Mono	graces?	**************************************	cs	A Regula	127 W.Z.	. •
narion			DI to be ca	arcinog	enic w	nen gi	ven to	rars 1		tojer
oses,	ial NTP program It was not car	rcinogenic	in a 2 yes	r inha	larion	stray				
	t. labored br	eathine. as	sthma-like	attack	s in s	ensiti.	ye hers	al reg	SEE On	CETC1
rritati	on of skin, e	ve damage.	or TDI sen	sitiza	tion.		•	•	. •	
ರ್ವವಾಗ ಕನೆದ ಎದು ಭಾರಾ	Tyrica by Economic	Respirator	ry bronchia	11 cond	itions	. Skin	sensit	ivity.		
•	WHATE			******						
asn wit	h plenty of so	oao & water	ush with war. Remove	CONTAM	inaced	_cloth:	ing. I	ngesti	on: Gi	kin: ve ve
	II Give oxyge			medic	al act	ention		~~~		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	— Precaudens for ken in Case Manana is			******						
	crew must ful			nt A	bsorb .	rateria	il with	<u> sawdu</u>	st or	
weeping	compound. De	contaminat	ce with mix	ture o	f.90% (	water,	87. com	centra	ted amm	onia.
	etergent. Sho	vel it int	to ober fob	drums	and r	emove t	o well	venti:	lated a	res.
se Carrei La bod a l	Mercon Of waste must	be done i	ln accordan	ce wit	h Feder	ral. St	ate an	. · ·	: " r	
	vironmental co	<del></del>			• .				• 500	
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ore in	tightly close	d containe	ers in dry	ccol n	taces (	at tem	erstur	es her	,	-0000
er riinecause	na This pro	duct react	s with wat	PT & O	Cher si	iostand	es cen	eratin	E CO2 R	85
	Il cause seale								-05BU	
ncainer	s if contamin	ation is s	uspected.						·	
	— Control Measu		• ••		••	· .	•	•		
eraziy Are: 'Cando d	eccon (Special Type)	Self-conta sks with e	uned breati	r sonra	ppararı	73 <b>, 8</b> 03	masks	equip	ed witi	<u> </u>
niaucn .	ದಿದ್ದಾ ಕ್ಷುಚಚಚ	YES				Diave	POTS A	e heav	er th	an al
	Macrianical (General)	YES			Cuner	,	· NOM			
	resistant rub	ber or pla	stica .	Est Por and	eccon fit sarety	riasse	ggles		shield	ds
ar Amstediye	Cuining or Equipment hoops, tubb									
MANAGE S	Pramies Do noc Clean at all	ent, urin	m, or smore	<u>e 111 m</u>	oriding	arcas.	Keep (	lochi	ig clear	n and
			, Pe	pe 2				• 4640	0. 1944	11/41:73